PART III - STORAGE IN CONTAINERS

III.A. UNIT DESCRIPTION

The Permittee is allowed to store hazardous waste in containers following the requirements of 6 CCR 1007-3 Part 264, Subpart I and in the following manner:

III.A.1. Storage Igloo G203

Storage Igloo G203 is located in the G Block of PCD as shown in figure 1-1-2. Igloo G203 is permitted only for the storage of liquid-phase mustard agent waste. The maximum capacity of Igloo G203 is 300 rounds, equivalent to a maximum of 330 gallons. Each round contains less than 1.10 gallons of agent. The Igloo consists of 4 walls, a roof, and floor all constructed of concrete. An air filtration system shall also be maintained at the unit.

III.A.2. Storage Igloo G1009

Storage Igloo G1009 is located in the G Block of PCD as shown in figure 1-1-2. Igloo G1009 is permitted only for the storage of liquid-phase mustard agent waste. The maximum capacity of Igloo G1009 is 300 rounds, equivalent to a maximum of 330 gallons. Each round contains less than 1.10 gallons of agent. The Igloo consists of 4 walls, a roof, and floor all constructed of concrete. An air filtration system shall also be maintained at the unit

III.A.3. Storage Igloo G1107

Storage Igloo G1107 is located in the G Block of PCD as shown in figure 1-1-2. Igloo G1107 is permitted only for the storage liquid-phase mustard agent waste. The maximum capacity of Igloo G1107 is 300 rounds, equivalent to a maximum of 330 gallons. Each round contains less than 1.10 gallons of agent. The Igloo consists of 4 walls, a roof, and floor all constructed of concrete. An air filtration system shall also be maintained at the unit.

III.A.4. Storage Igloo G1109

Storage Igloo G1109 is located in the G Block of PCD as shown in figure 1-1-2. Igloo G1109 is permitted only for the storage liquid-phase mustard agent waste. The maximum capacity of Igloo G1109 is 300 rounds, equivalent to a maximum of 330 gallons. Each round contains less than 1.10 gallons of agent. The Igloo consists of 4 walls, a roof, and floor all constructed of concrete. An air filtration system shall also be maintained at the unit.

III.A.5. Storage Igloo G1110

Storage Igloo G1110 is located in the G Block of PCD as shown in figure 1-1-2. Igloo G1110 is permitted only for the storage of agent contaminated wastes. The wastes stored are solid-phase mustard agent-contaminated waste, such as debris, metal parts, dunnage, plastic, used personal protective equipment, filters, solid-

phase laboratory waste, equipment, sorbents, media, and energetic components. The Permittee may store in containers only the mustard agent-contaminated hazardous waste streams identified in the Waste Analysis Plan, Permit Attachment 3. All wastes stored in the unit shall be in RCRA or DOT permitted containers that are stored on pallets. The maximum capacity of this unit is 7,920 gallons. The Igloo consists of 4 walls, a roof, and a floor all constructed of concrete. An air filtration system shall also be maintained at the unit.

III.A.6. Building 540

Building 540 is located in the Southern Industrial Parcel of PCD as shown in figure 1-1-2. This unit is permitted only for the storage of non agent hazardous wastes that are generated at the facility. All waste must be stored in RCRA or DOT approved containers, and be stored in a manner that prevents commingling of incompatible materials. The unit consists of 4 walls, a roof, and a concrete pad. The pad is divided into 4 equal storage compartments. The maximum capacity of Building 540 is 13,200 gallons.

III.B. PERMITTED WASTE IDENTIFICATION

III.B.1. Permitted Waste for each unit is listed below.

III.B.1.a. The following table lists the approved waste codes for storage in containers in Igloos G203, G1009, G1107, and G1109. The waste contained in the units specified must be listed as P909, P910 and/or K901 in addition to any D listings:

D Codes	F Codes	K Codes	P Codes	U Codes
D002-Corrosive D003-Reactive D004-Arsenic D005-Barium D006-Cadmium D007-Chromium D008-Lead D009-Mercury D010-Selenium D011-Silver D022-Chloroform D028-1,2-Dichlorethane D029-1,1-Dichlorethylene D030-2,4-Dinitrotoluene D034-Hexachloroethane D039-Tetrachlorethylene D040-Trichloroethylene D043-Vinyl Chloride		K901-Waste Chemical Weapons	P909-HD Mustard Agent P910-HT Mustard Agent	

III.B.1.b. The following table lists the approved waste codes for storage in containers in Igloo G1110. The waste contained in the unit must be listed P909, P910, K901, and/or K902 in addition to any D listing:

D Codes	F Codes	K Codes	P Codes	U Codes
D002-Corrosive D003-Reactive D004-Arsenic D005-Barium D006-Cadmium D007-Chromium D008-Lead D009-Mercury D010-Selenium D011-Silver D022-Chloroform D028-1,2-Dichlorethane D029-1,1-Dichlorethylene D030-2,4-Dinitrotoluene D034-Hexachloroethane D039-Tetrachlorethylene D040-Trichloroethylene D043-Vinyl Chloride		K901-Waste Chemical Weapons K902-Soil, water, debris, or containers contaminated with waste chemical weapons	P909-HD Mustard Agent P910-HT Mustard Agent	

III.B.1.c. The following table lists the approved waste codes for storage in Building 540:

D Codes	F Codes	K Codes	P Codes	U Codes
D001-Ignitable D002-Corrosive D003-Reactive D004-Arsenic D005-Barium D006-Cadmium D007-Chromium D008-Lead D009-Mercury D010-Selenium D011-Silver D012-Endrin D013-Lindane D014-Methoxychlor D015-Toxaphene D016-2,4-D D017-2,4,5,-TP D018-Benzene D019-Carbon Tetrachloride D020-Chlordane D021-	F001-Solvents F002-Solvents F003-Solvents F004-Solvents F005-Solvents F039-Leachate			U002-Acetone U044-Chloroform U154-

Chlorobenzene D022-Chloroform D023-o-Cresol D024-m-Cresol D025-p-Cresol D026-Cresol D027-1,4-Dichlorobenzene D028-1,2-Dichlorethane D029-1,1-Dichlorethylene D030-2,4-Dinitrotoluene D031-Heptachlor D032-Hexachlorobenzene D033-Hexachloro-1,3-butadiene D034-Hexachloroethane D035-Methyl ethyl ketone D036-Nitrobenzene D037-Pentachlorophenol D038-Pyridine D039-Tetrachlorethylene D040-Trichloroethylene D041-2,4,5-Trichlorophenol D042-2,4,6-Trichlorophenol D043-Vinyl Chloride				

III.B.2. In addition the following wastes are specifically prohibited from storage in the respective units:

III.B.2.a. Igloos G203, G1009, G1107, G1109

- Secondary agent-related wastes
- Non-agent related wastes

III.B.2.b. Igloo G1110

- Waste agent munitions
- Liquid agent related wastes
- Non-agent related wastes

III.B.2.c. Building 540

- Agent-related wastes

III.C. CONDITION OF CONTAINERS

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee must transfer the hazardous waste from such container to a container that is in good condition within 24 hours from the time the problem was first discovered, overpack the container, or otherwise manage the waste in compliance with the conditions of this permit. [6 CCR 1007-3, §264.171]

III.D. COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee must use a container made of, or lined with, materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored so that the ability of the container to contain the waste is not impaired. [6 CCR 1007-3, §264.172]

III.E. MANAGEMENT OF CONTAINERS FOR STORAGE

III.E.1. The Permittee shall keep all containers closed during storage, except when it is necessary to sample the container contents, or add or remove waste. The Permittee shall not open, handle, or store containers in a manner that may rupture the container or cause it to leak. [6 CCR 1007-3, §264.173]

III.E.2. The Permittee must store hazardous waste in containers which meet the Colorado Department of Transportation (CDOT), or equivalent specifications found in 49 CFR Subchapter C, Part 173. Containerized material must be stored in containers which are in good condition and appropriate for the type of material. Container requirements for individual units are as follows:

III.E.2.a. Storage Igloos G203, G1009, G1107, G1109

Approved containers include over-pack containers, DOT bottles, steel ammunition boxes, and propelling charge containers. Containers must not be stacked.

III.E.2.b. Storage Igloo G1110

Approved containers include DOT and RCRA approved drums, and DOT bottles. Containers must not be stacked. Other containers may be used where appropriate and in accordance with the requirements of 6 CCR 1007-3, Part 264, Subpart I and Department of Transportation specifications in 49 CFR, §§173.24, 178, and 179. Containers shall be selected for each type of waste in accordance with the Hazardous Materials Table in 49 CFR, §172.101.

III.E.2.c. Building 540

Approved containers include DOT and RCRA approved drums, and DOT bottles. Containers must not be less than 5 gallon capacity, or more than 85 gallon capacity. Containers with less than 30 gallon capacity must not be stacked. Containers with 30 through 85 gallon capacity may be stacked, but must not be stacked more than 2 high, and pallets must be placed between the first and second levels.

III.E.3. The Permittee must maintain adequate aisle space inside all container storage units so that each container can be easily inspected and removed if necessary. Aisle spaces shall be as follows:

III.E.3.a. In Building 540, a main aisle a minimum of 5 feet wide must be maintained to allow access to the center forklift ramp.

III.E.3.b. In Building 540 secondary aisle space at least 3 feet wide must be maintained between each row, with rows not more than 2 drums or 1 pallet wide, and stacks no more than 2 drums high.

III.E.3.c. In Building 540, aisle space between rows of containers and berms or walls around the containment area must be at least 3 feet wide.

III.E.3.d. In Storage Igloos G203, G1009, G1107, G1109, and G1110, aisle space between rows of containers and berms or walls must be at least 3 feet wide.

III.E.4. All containers of hazardous waste must be marked with the following information, once they have been received for storage:

III.E.4.a. Clearly marked “Hazardous Waste”.

III.E.4.b. Clearly marked with at least one major waste code, UN code or other DOT shipping label, which indicates the primary hazardous characteristic of the material (ignitable/flammable, corrosive, reactive, toxic) or the compatibility grouping of the material. Alternatively, signs containing this information may be placed in the immediate area of the containers for each hazard class or compatibility grouping.

III.E.4.c. Site-specific number or identification which can be cross referenced with the manifest or shipping papers accompanying waste to the facility and which can be correlated to the date placed in storage.

III.E.4.d. All containers which are sampled per waste analysis requirements must be marked with a unique, site specific number or

identification, which correlates to waste analysis records in the operating record, once they have been received for storage.

III.E.4.e. Over-packed munitions may be marked with a unique alphanumeric identifier rather than a hazardous waste label. The hazardous waste label must then be placed on the pallet holding the munitions and the label must indicate which munitions are stored on that pallet by using the alphanumeric code. A schematic diagram of the current location of each container within each respective Container Storage Igloo shall be kept up to date and maintained in the facility operating record.

III.E.5. The Permittee must inspect Building 540 and Igloos G203, G1009, G1107, G1109, and G1110 in accordance with the inspections schedule described in Storage Area Inspections and Log Sheets, Permit Attachment 2. [6 CCR 1007-3, §264.174]

III.F. CONTAINMENT SYSTEMS

The Permittee must construct and maintain containment systems in accordance with 6 CCR 1007-3, §264.175, the attached plans and specifications, and the following requirements:

III.F.1. Storage Igloos G203, G1009, G1107, G1109, and G1110:

All containers must be stored on secondary containment pallets. Each pallet has a containment capacity of 66 gallons.

III.F.2. Igloos G203, G1009, G1107, and G1109 are required to have secondary containment since they are used to store liquid hazardous waste. Secondary containment in Igloos G203, G1009, G1107, and G1109 shall consist exclusively of polyethylene containment pans.

III.F.2.a. Polyethylene secondary containment pans must be impermeable to mustard agent and associated contaminants and breakdown products.

III.F.2.b. Prior to use, each containment pan must be inspected to ensure structural integrity of the pan is sufficient for load bearing and for secondary containment.

III.F.2.c. Each containment pan must have a load bearing capacity rating of 6000 pounds, and the containment pans must only be moved while empty.

III.F.2.d. The maximum volume of any single container stored on an individual containment pan shall not exceed 43 gallons.

III.F.2.e. If holes, gaps, cracks, or other damage, deformation, or deterioration is observed at any time on any containment pan such that its structural integrity for load-bearing or its secondary containment capacity is affected, the containment pan shall not be used for hazardous waste storage.

III.F.2.f. In the event of a release of hazardous waste onto any portion of a containment pan (including the grating), the containment pan shall be either:

i. Removed from service, containerized, and managed appropriately as hazardous waste; or

ii. Decontaminated within 24-hours in accordance with a plan submitted by the Permittee and approved by the Division. If the containment pan was contaminated with mustard agent, the decontamination must be verified and accepted by the Division before the containment pan can be returned to use.

III.F.3. Igloo G1110 is only permitted for storage of solid-phase waste; therefore, spill containment berms and floor coating are not required. However, at a minimum, the floor of G1110 must be maintained free of cracks greater than ½ inch in width. Cracks greater than ½ inch in width shall be repaired within 15 days of discovery.

III.F.4. At a minimum, the floor of igloos G203, G1009, G1107, and G1109 must be maintained free of cracks greater than ½ inch in width. Cracks greater than ½ inch in width shall be repaired within 15 days of discovery.

III.F.5. Building 540

III.F.5.a. The concrete pad is surrounded by an 8 inch high berm. The pad is divided into four quadrants, each of which are separated by a 6 inch high berm. The containment capacity of each quadrant is 5,050 gallons which exceeds the minimum containment requirement of 1,320 gallons for the unit.

III.F.5.b. The concrete pad is also surrounded by a drainage ditch with 2:1 side slopes, which diverts run-off away from the storage area and precludes the potential for run-on. Run-

on into the containment system must also be prevented by the berms. Each compartment must be sloped to the outer corner, which contains a drain. The drain shall consist of a capped PVC pipe. Drains must remain capped or plugged at all times.

III.F.5.c. The Permittee must visually inspect all containment berms in Building 540, and berms must not be obscured by equipment or structures.

III.F.6. The concrete base underlying all permitted container storage areas shall be sufficiently impervious to contain leaks, spills, and accumulated precipitation until detected and removed. The Permittee shall maintain the chemical resistant coating on the concrete and repair any detected cracks in accordance with the Inspection Plan, Permit Attachment 2.

III.F.7. All spills, leaks, or accumulated precipitation in Building 540 and Igloos G203, G1009, G1107, G1109, and G1110 must be removed and transferred to a proper container immediately upon discovery (which must not be longer than 24 hours after identification of the spill, leak, or accumulated precipitation). Any liquid that, based on chemical analyses or generator knowledge, meets the definition of a hazardous waste, as specified in 6 CCR 1007-3, Part 261, must be treated as a generated hazardous waste, and managed according to the conditions of this permit and all requirements of 6 CCR 1007-3, Part 262.

III.G. INSPECTION PROCEDURES

III.G.1. Building 540

Inspections of Building 540 must be conducted at least weekly when containers are present, or quarterly (not to exceed 120 calendar days between inspections) when containers are not present. Additional inspection requirements and an inspection log for Building 540 are provided in Storage Area Inspections and Log Sheets, Permit Attachment 2.

III.G.2. Storage Igloos G203, G1009, G1107, G1109, G1110

Air monitoring within the Container Storage Igloos shall be conducted on a weekly basis. The exterior of the Container Storage Igloos shall be inspected monthly, and the interior shall be inspected quarterly. Additional inspection requirements and inspection logs for Igloos G203, G1009, G1107, G1109, and G1110 are provided in Storage Area Inspection and Log Sheets, Permit Attachment 2.

III.H. RECORD KEEPING

The Permittee must place the results of all waste analyses, trial tests, and any other documentation showing compliance with the requirements of this Part of the permit, in the facility operating record in accordance with 6 CCR 1007-3, §264.73.

III.I. OPERATIONAL PROCEDURES

III.I.1. Defense Reutilization Marketing Office (DRMO) turn-in requirements as described in the Hazardous Waste Management Plan shall be reviewed to ensure that the material or waste to be stored is properly identified. The Environmental Coordinator representing PCD must check each container and the turn-in document prior to accepting the container for storage. Containers must be properly labeled and closed. The containers must be placed in the appropriate compartment within Building 540.

III.I.2. After a container is placed in a Container Storage Igloo, it must be logged into the facility record book that lists lot number, description of waste, hazardous waste number, analysis number (if any), number of containers, and date put in storage. The logs shall become part of the facility operating record

III.I.3. Upon receipt all containers and/or pallets of hazardous waste must be marked or labeled with the following information:

III.I.3.a. The following statement: “Hazardous Waste - Federal Law Prohibits Improper Disposal. If Found, Contact the Nearest Police or Public Safety Authority or the U.S. Environmental Protection Agency.”

III.I.3.b. Generator’s Name and Address.

III.I.3.c. Manifest Document Number (if being transported).

III.I.3.d. EPA identification number.

III.I.3.e. Appropriate state and federal waste codes.

III.I.3.f. Date accumulation of the waste began.

III.I.4. Storage Requirements for Igloos G203, G1009, G1107, and G1109.

III.I.4.a. Over-packing of leaking mustard agent munitions must be conducted. When a leaking chemical munition is detected, it must be placed inside a specially designed container and transferred to a Container Storage Igloo. The nature of the leak must be noted in a leaker report. A

magazine data card or an equivalent label must be prepared with information describing the type of leak, type of munition, the identification number, and date filled.

III.I.4.b. Liquid-phase mustard agent waste shall be stored in Igloos G203, G1009, G1107, or G1109 until transferred to a chemical demilitarization facility for treatment and disposal.

III.I.4.c. Liquid-phase mustard agent-related waste, such as laboratory waste, shall be stored in Igloos G203, G1009, G1107, or G1109 until transferred to a chemical demilitarization facility or other permitted facility for treatment and disposal.

III.I.4.d. All containers must be stored on pallets.

III.I.4.e. Overpacked munitions and containers on containment pans must not be stacked.

III.I.5. Storage Requirements for Igloo G1110:

III.I.5.a. Mustard agent contaminated PPE, dunnage, or other solid-phase waste associated with the leaking rounds that has gone through the decontamination process shall be stored in Igloo G1110, awaiting disposition. Containers in Igloo G1110 must not contain free liquids, and the Permittee must be able to provide documentation of no free liquid present for any container stored in this area. Decisions on whether a material contaminated with agent is a hazardous waste are made by using the decision trees found in the Waste Analysis Plan, Attachment 3 of this Permit.

III.I.5.b. Solid-phase mustard agent contaminated materials shall be stored in Igloo G1110 until transferred to a chemical demilitarization facility or other permitted facility for treatment and disposal.

III.I.5.c. All containers must be stored on pallets.

III.I.5.d. Overpacked munitions and containers on containment pans must not be stacked.

III.J. CLOSURE

At closure of Building 540 and Igloos G203, G1009, G1107, G1109, and G1110, the Permittee must remove all hazardous waste and hazardous waste residues from the unit and containment systems in accordance with the procedures in the Closure Plan, Permit Attachment 6, and comply with all requirements of 6 CCR 1007-3, §264.178.

III.K. SPECIAL PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

III.K.1. The Permittee must not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line. [6 CCR 1007-3, §264.176]

III.K.2. The Permittee must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste, follow the procedures specified in Procedures to Prevent Hazards, Permit Attachment 2, and comply with all requirements of 6 CCR 1007-3, §264.17.

III.L. SPECIAL PROVISIONS FOR INCOMPATIBLE WASTES

III.L.1. The Permittee must identify containers of potentially incompatible wastes and must not place incompatible wastes, or incompatible wastes and materials, in the same containment area, and must segregate wastes as specified in the Procedures to Prevent Hazards, Permit Attachment 2. [6 CCR 1007-3, §264.177(c)]

III.L.2. The Permittee must not place incompatible wastes, or incompatible wastes and materials, in the same container. [6 CCR 1007-3, §264.177(a)]

III.L.3. The Permittee must not place hazardous waste in an unwashed container that previously held an incompatible waste or material. [6 CCR 1007-3, §264.177(b)]

III.L.4. A container that is incompatible with the waste material it contains must be immediately over-packed or have its contents transferred to a container that is compatible with the waste.

III.L.5. A container holding hazardous waste that is incompatible with any other waste or materials stored nearby in other containers or open tanks must be physically separated from the other materials or protected from them by means of a dike, berm, wall, or other device. Lab packs are considered to be compatible with other containers for purposes of this requirement, provided that all individual containers within a lab pack contain compatible materials. Lab pack compatibility grouping will be determined by the wastes contained in the lab pack container.

III.L.6. In Building 540 incompatible wastes must be stored in separate compartments. Determination of compatibility shall be made according to A Method for Determining the Compatibility of Hazardous Wastes, EPA-6001 2-80-076. Attachment 7 shows the storage compartments and waste types stored in each.

III.L.7. Incompatible wastes must be stored in separate compartments within a container storage igloo. Determination of compatibility shall be made according to A Method for Determining the Compatibility of Hazardous Wastes, EPA-6001 2-80-076 or by generator knowledge. Temporary secondary containment compartments may be used to store incompatible wastes and each compartment must be placed at least 5 feet from any incompatible waste.

III.M. AIR EMISSION STANDARDS FOR CONTAINERS

III.M.1. The Permittee shall control air pollutant emissions from each container in accordance with the standards specified in 6 CCR 1007-3, Part 264, Subpart CC.

III.M.2. Hazardous waste containers stored at PCD with design capacities less than or equal to 0.1 m^3 (approximately 26 gallons) are not subject to the requirements of 6 CCR 1007-3, Part 264, Subpart CC.

III.M.3. Hazardous waste containers stored at PCD with design capacities greater than 0.1 m^3 must be managed in accordance with the Container Level 1 standards described in 6 CCR 1007-3, §264.1086(c) and all other applicable standards in 6 CCR 1007-3, Part 264, Subpart CC.

III.M.4. Containers must be inspected in accordance with the requirements of 6 CCR 1007-3, §264.1086(c)(4). Documentation of the inspections must be maintained in the facility operating record.

III.M.5. The record keeping requirements [6 CCR 1007-3, §264.1089] and reporting requirements [6 CCR 1007-3, §264.1090] must be followed and the records must be maintained in the facility operating record.